

FIG. 1

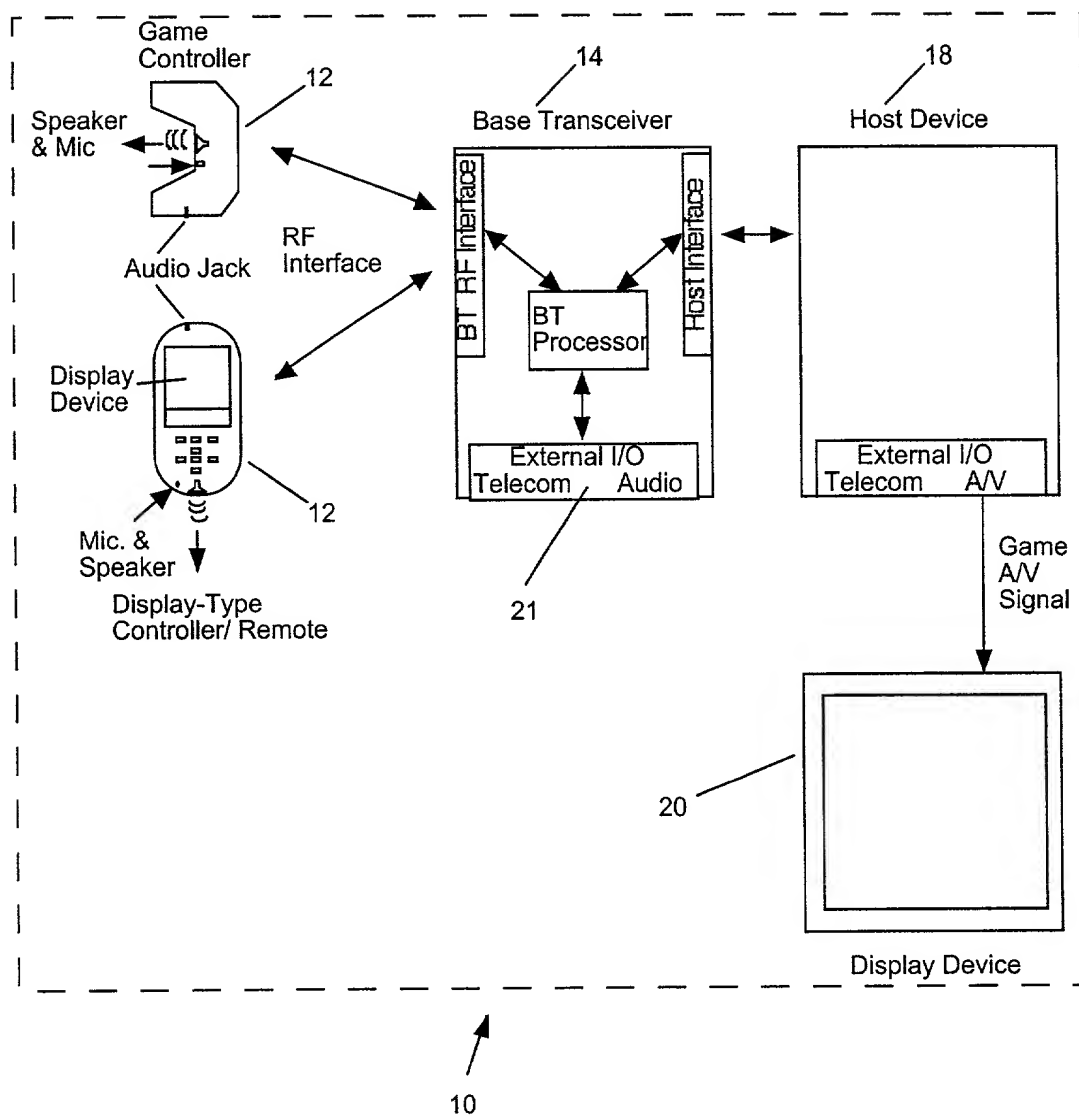


FIG. 2

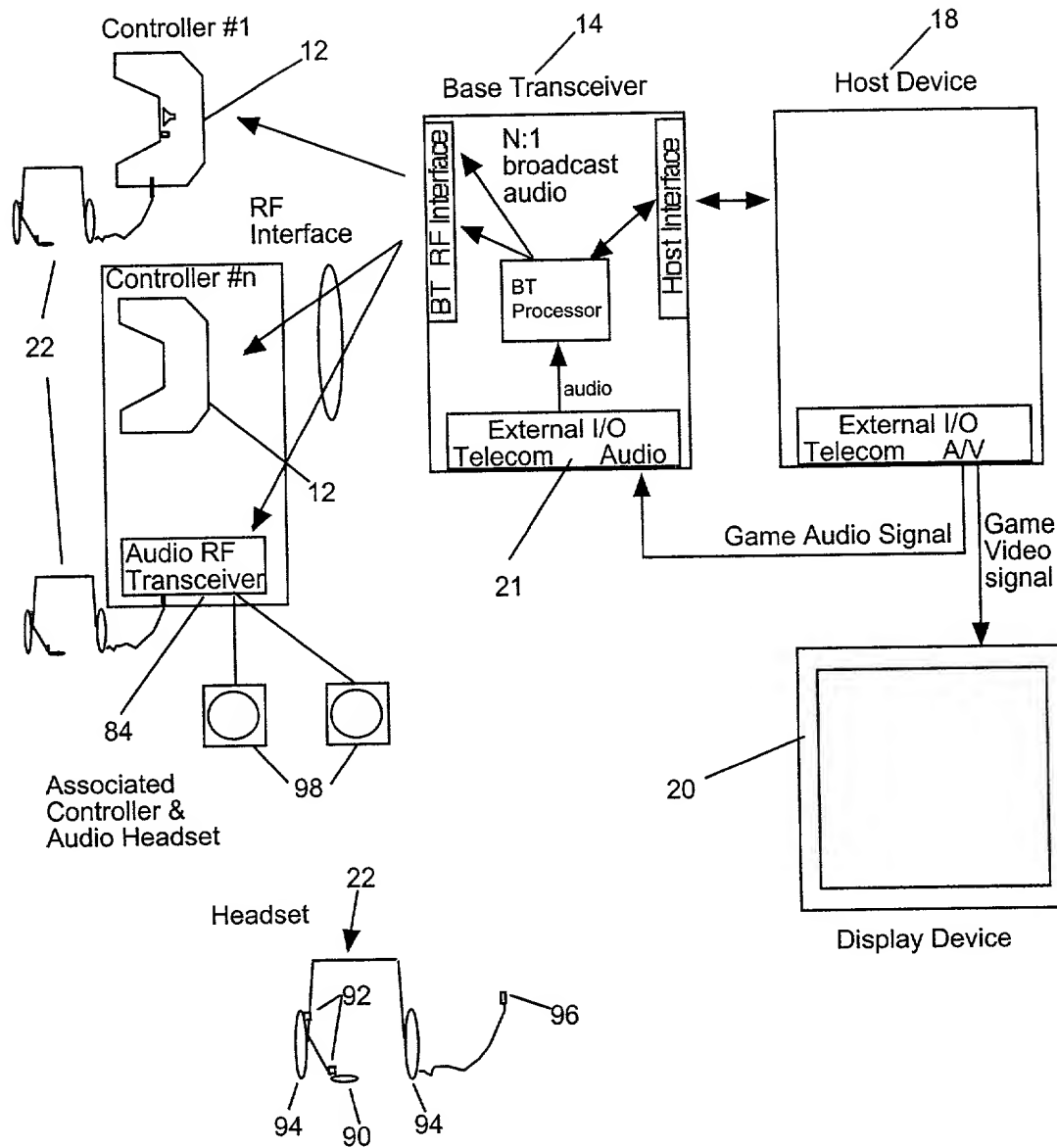


FIG. 3

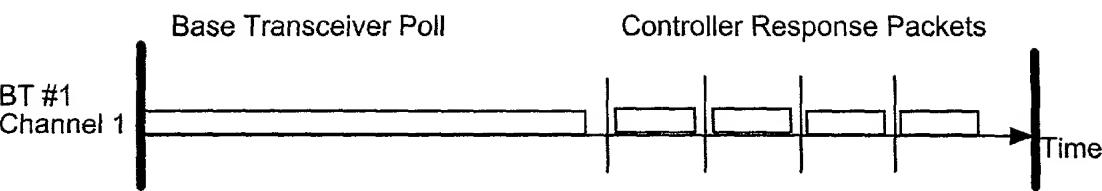
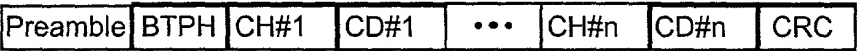
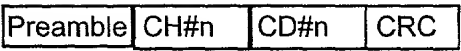


FIG. 4



Preamble	Training preamble
BTPH	Base Transceiver Header
CH#0	Controller #1 Polling Header
CD#0	Controller #1 Polling Payload
...	
CH#n	Controller #n Polling Header
CD#n	Controller #n Polling Data Payload
CRC	Frame Check (CRC)

FIG. 5



Preamble	Training preamble
CH#n	Controller #n Response Header
CD#n	Controller #n Response Data Payload
CRC	Frame Check (CRC)

FIG. 6

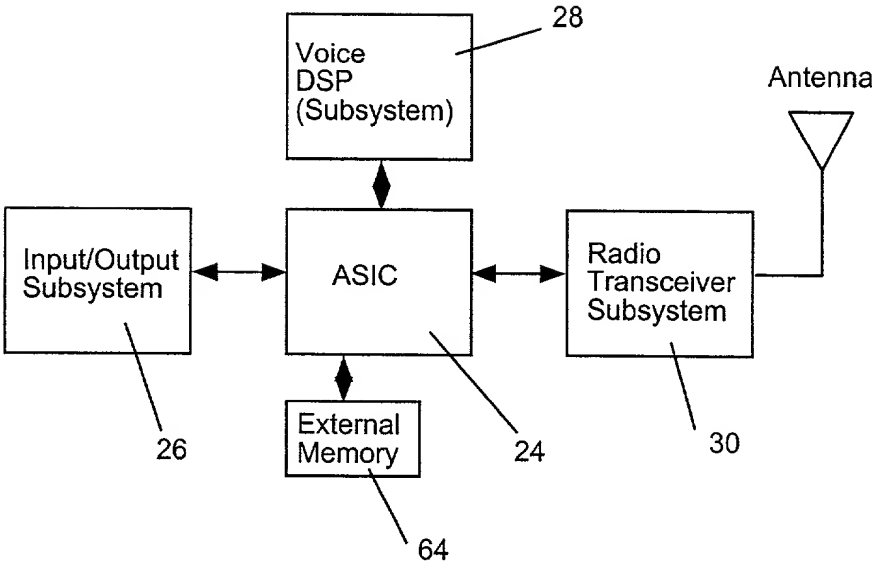


FIG. 12

Predefined Keyboard Audio Voice Commands

Controller Input Selected	Keyboard Command	Shifted Keyboard Command
SQUARE	RETURN	.
CROSS	DEL	,
TRIANGLE	SPACE	TAB
CIRCLE	ENTER	@
Trigger left upper	mouse click right	mouse click left
Trigger left lower	SHIFT	SHIFT
Trigger right upper	/	\
Trigger right lower	:	;
D-pad up	cursor up	cursor up
D-pad down	cursor down	cursor down
D-pad right	cursor right	cursor right
D-pad left	cursor left	cursor left
Right Joystick right up	mouse pad up	mouse pad up
Right Joystick right down	mouse pad down	mouse pad down
Right Joystick right left	mouse pad left	mouse pad left
Right Joystick right right	mouse pad right	mouse pad right

FIG. 7

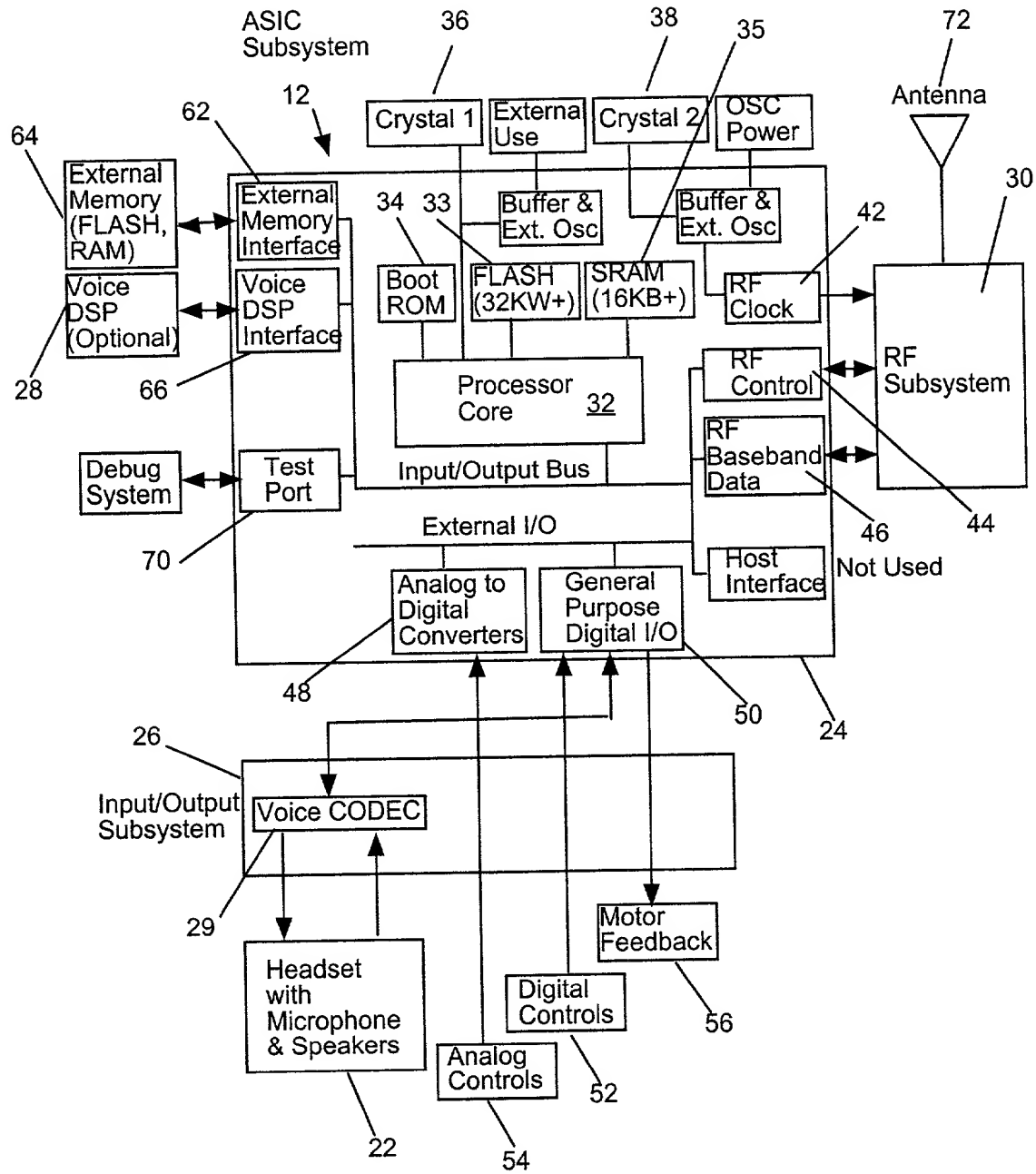
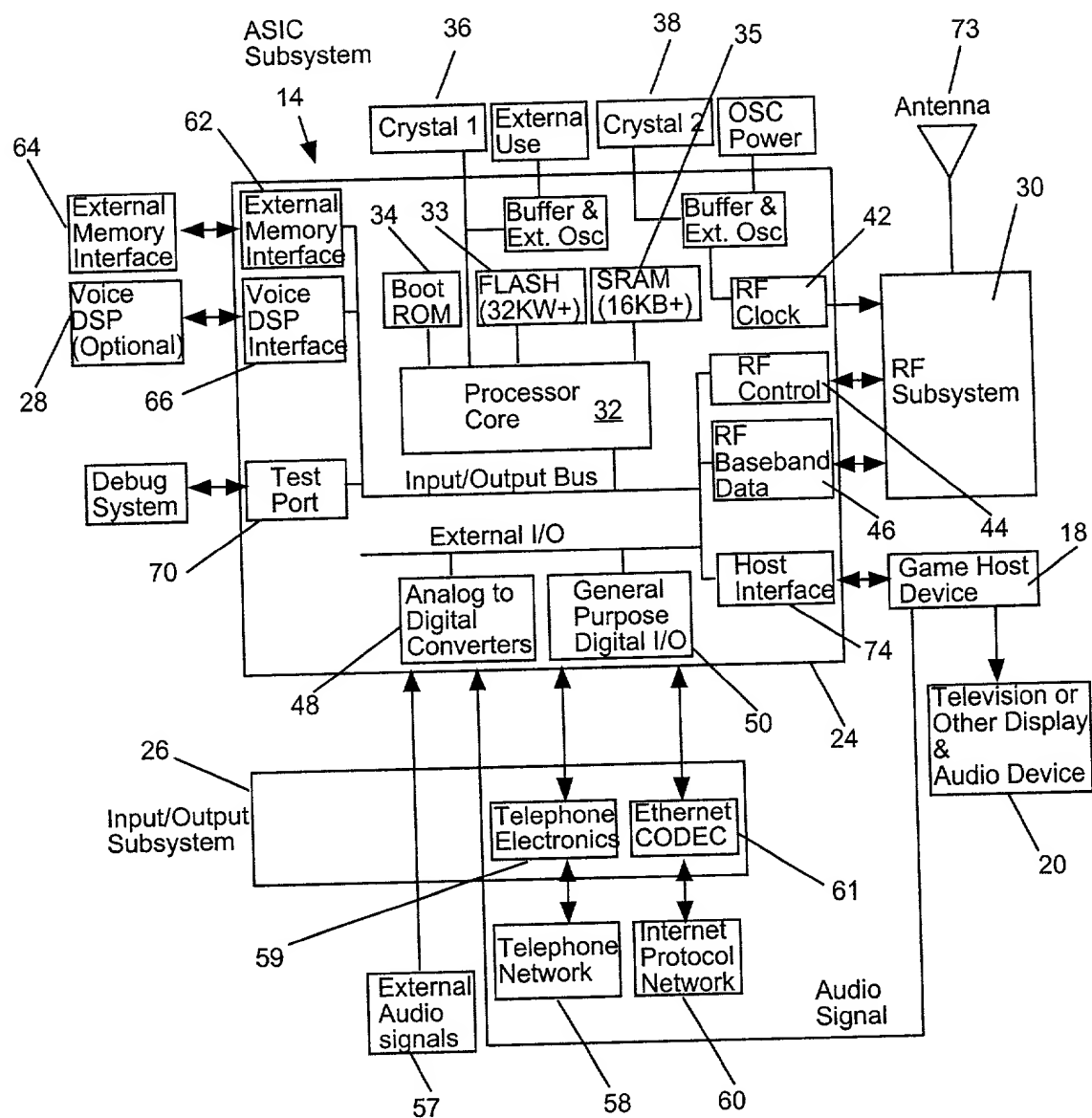
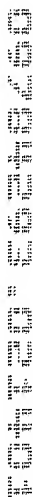


FIG. 8



Year	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100
1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	



SELECT

Mode Transitions

START MODE	END MODE				
	normal audio	bi-dir. audio	gaming audio	keyboard audio	program audio
normal audio	n/a	VOICE	VOICE+SELECT	VOICE+ANALOG	VOICE+PROGRAM
bi-dir. audio	none	n/a	none	none	none
gaming audio	VOICE+SELECT	VOICE	n/a	VOICE+ANALOG	VOICE+PROGRAM
keyboard audio	VOICE+ANALOG	VOICE	VOICE+SELECT	n/a	VOICE+PROGRAM
program audio	VOICE+PROGRAM	VOICE	VOICE+SELECT	VOICE+ANALOG	n/a

FIG. 11

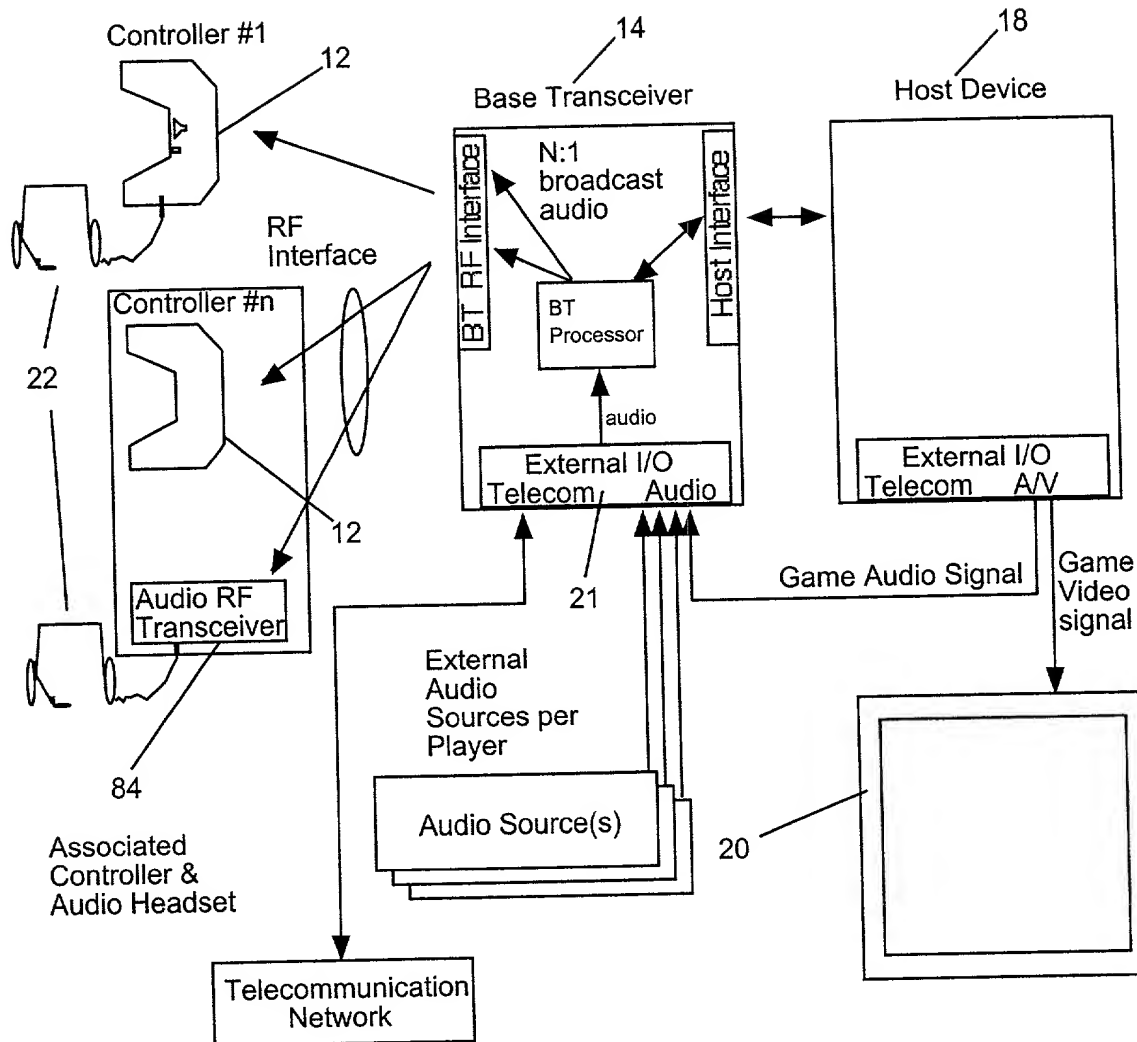


FIG. 13 Program Audio Mode

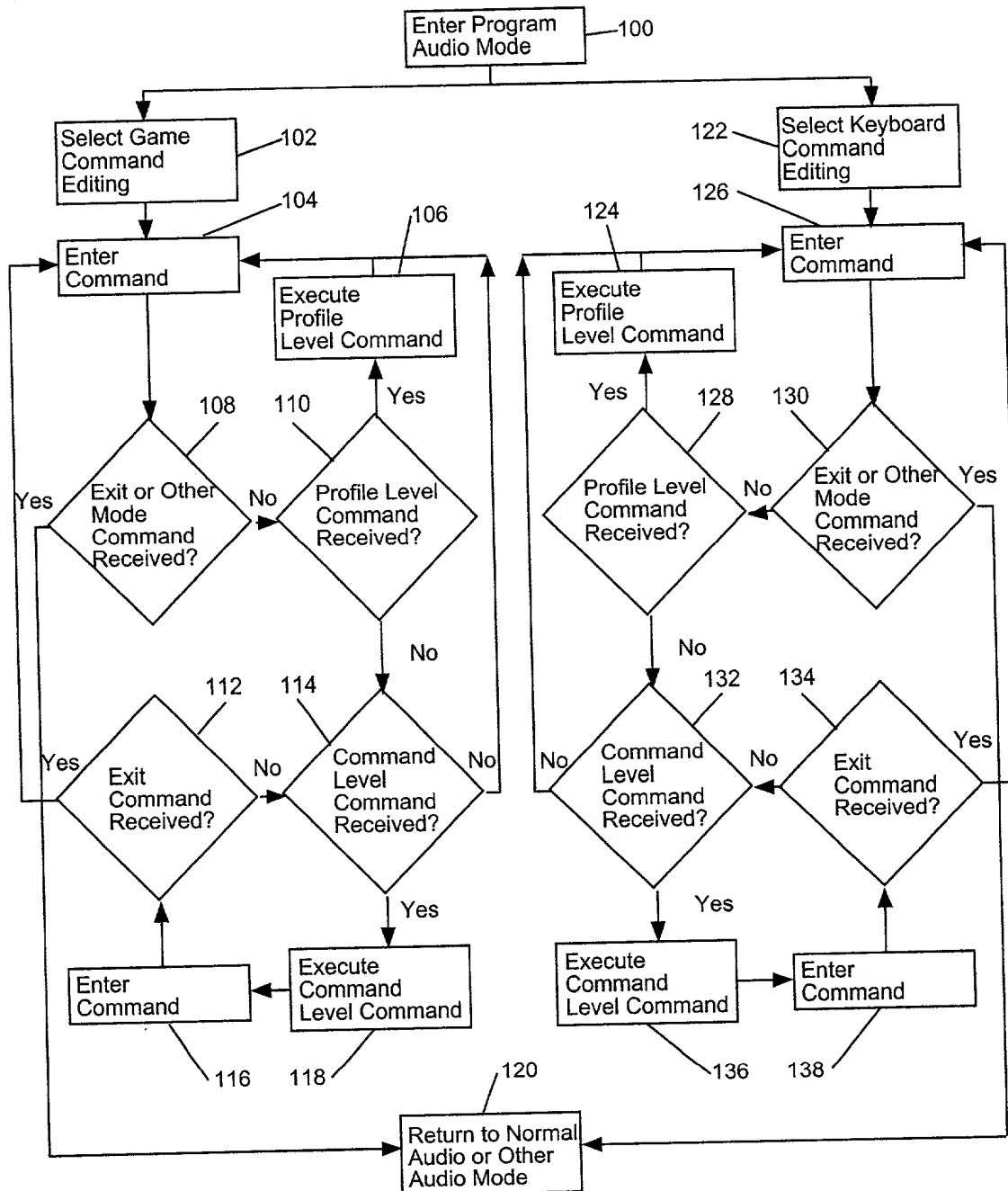


FIG.14 Voice Command Components

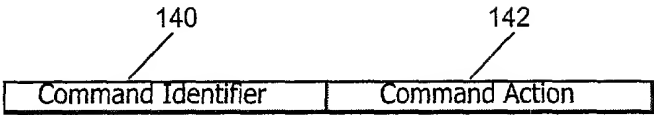


FIG. 15 Voice and Controller Key Voice Editing Commands

	170	172	174	176
	Command Level	Function	Command Identifier	Command Action
150	Profile	Create a new profile	'new profile' [profile identifier]	None
152	Profile	List existing profiles	'list profile'	None
154	Profile	Select a profile to edit	'select profile' [profile identifier]	None
156	Profile	Delete a profile	'delete profile' [profile identifier]	None
158	Profile	Upload a profile to controller	'upload' [profile identifier]	None
160	Profile	Download profile to BT	'download' [profile identifier]	None
162	Command	List commands in a profile	'list command'	None
164	Command	Add a command in a profile	'add command' [command identifier]	key and/or voice command sequence to be associated with the command identifier
166	Command	Delete a command in a profile	'delete' [command identifier]	None
168	Profile & Command	Exit	VOICE key+PROGRAM key	None

- 178 NOTES:
1. The Profile & Command Identifiers can be composed of voice and/or controller keys
 2. The Command Identifier and Command Action fields both end with Program key delimitation, not shown.

FIG. 16 Pattern Matching Table Example

FIG. 16 Pattern Matching Table Example						
180	182	184	186	188	190	
192	INPUT TYPE	CONTROLLER INPUT	CODE MAPPING MODE	DESCRIPTION	INTERNAL CODE	HOST COMMAND CODE
	VOICE		Keyboard	"a" to "z"	1-26	1001-1026
	CONTROLLER+VOICE	Trigger left lower	Keyboard	SHIFT "a" to "z"	27-52	1027-1052
	VOICE		Keyboard	"0" to "9"	53-62	1053-1062
	CONTROLLER+VOICE	Trigger left lower	Keyboard	SHIFT "0" to "9"	63-72	1063-1072
	VOICE		Keyboard	"_","=","?" ,"~" ",',	73-78	1073-1078
	CONTROLLER+VOICE	Trigger left lower	Keyboard	SHIFT "_","=","?" ,"~" ",',	79-84	1079-1084
	CONTROLLER	SQUARE, CROSS, TRIANGLE, CIRCLE	Keyboard	RETURN, DEL, SPACE, ENTER	85-88	1085-1088
193	CONTROLLER	Trigger left upper	Keyboard	mouse click right	89	1089
	CONTROLLER	Trigger left lower	Keyboard	SHIFT	90	1090
	CONTROLLER	Trigger right upper	Keyboard	/	91	1091
	CONTROLLER	Trigger right lower	Keyboard	:	92	1092
	CONTROLLER	D-pad up,down,right,left	Keyboard	cursor up, down, right, left	93-96	1093-1096
194	CONTROLLER	Right Joystick right up, down, left, right	Keyboard	mouse pad up, down, left, right	97-100	1097-1100
	CONTROLLER	SHIFT SQUARE	Keyboard	.	101	1101
	CONTROLLER	SHIFT CROSS	Keyboard	,	102	1102
	CONTROLLER	SHIFT TRIANGLE	Keyboard	TAB	103	1103
	CONTROLLER	SHIFT CIRCLE	Keyboard	@	104	1104
	CONTROLLER	SHIFT Trigger left upper	Keyboard	mouse click left	105	1105
	CONTROLLER	SHIFT Trigger right upper	Keyboard	\	106	1106
	CONTROLLER	SHIFT Trigger right lower	Keyboard	;	107	1107
	CONTROLLER	SHIFT D-pad up,down,right,left	Keyboard	cursor up, down, right, left	108-111	1108-1111
	CONTROLLER	SHIFT Right Joystick right up, down, left, right	Keyboard	mouse pad up, down, left, right	112-115	1112-1115
196	CONTROLLER	SQUARE,CROSS, TRIANGLE, CIRCLE	Game	Game-specific meaning	500-503	200-203
	CONTROLLER	Trigger left up,down & right up,down	Game	Game-specific meaning	504-507	204-207
198	CONTROLLER	D-pad up,down,right,left	Game	Game-specific meaning	508-511	208-211
	CONTROLLER	Right Joystick right up, down, left, right	Game	Game-specific meaning	512-515	212-215
	CONTROLLER	Left Joystick right up, down, left, right	Game	Game-specific meaning	516-519	216-219
199	CONTROLLER	VOICE, SELECT,ANALOG, PROGRAM; VOICE+SELECT, VOICE+ANALOG, VOICE+PROGRAM, &program audio mode edit commands	Game or Keyboard	Reserved commands	600-606, 607-615	300-306, 307-315
200	VOICE-User Defined	"Web"	Keyboard	User Defined	2000	(see profile)
202	VOICE-User Defined	"Flaps up"	Game	User Defined	2001	(see profile)
204	VOICE-User Defined	"Flaps down"	Game	User Defined	2002	(see profile)

FIG. 17 Keyboard Mode - Profile "keyboard1" Example

DESCRIPTION	INTERNAL CODE	HOST COMMAND CODE(S)
Spoken "Web" made of "w"+"w"+"w"+"."	2000	1023, 1023, 1023, 1101

FIG. 18 Game Mode - Profile "game1" Example

DESCRIPTION	INTERNAL CODE	HOST COMMAND CODE(S)
"Flaps up" made of TRIANGLE+D-Pad Up	2001	202, 208
"Flaps down" made of TRIANGLE+D-Pad Down	2002	202, 209
"Flaps up" with SELECT key delimiting option	2001, 601	202, 208